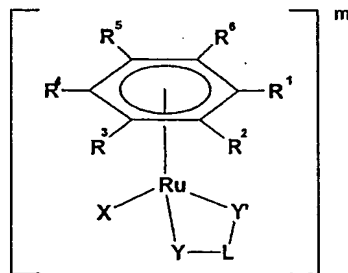


CLAIMS

1. Ruthenium(II) compound of formula (I):



(I)

wherein: R^1 , R^2 , R^3 , R^4 , R^5 and R^6 independently represent H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, halo, CO₂R⁷, CONR⁸R⁹, COR¹⁰, SO₃H, SO₂N R¹¹R¹², aryloxy, (C₁-C₆)alkoxy, (C₁-C₆)alkylthio, -N=N-R¹³, NR¹⁴R¹⁵, aryl or aralkyl, which latter two groups are optionally substituted on the aromatic ring by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, CO₂R^{7a}, CONR^{8a}R^{9a}, COR^{10a}, SO₃G, SO₂NR^{11a}R^{12a}, aryloxy, (C₁-C₆)alkoxy, (C₁-C₆)alkylthio, -N=N-R^{13a}, NR^{14a}R^{15a}, or R^1 and R^2 together with the ring to which they are bound represent a saturated or unsaturated carbocyclic or heterocyclic group containing up to three 3- to 8- membered carbocyclic or heterocyclic rings, wherein each carbocyclic or heterocyclic ring may be fused to one or more other carbocyclic or heterocyclic rings, and wherein each of the rings may be optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, CO₂R^{7b}, CONR^{8b}R^{9b}, COR^{10b}, SO₃G', SO₂NR^{11b}R^{12b}, aryloxy, (C₁-C₆)alkylthio, -N=N-R^{13b}, NR^{14b}R^{15b} or (C₁-C₆)alkoxy;

$R^7, R^8, R^9, R^{10}, R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, R^{7a}, R^{8a}, R^{9a}, R^{10a}, R^{11a}, R^{12a}, R^{13a}, R^{14a}, R^{15a}, R^{7b}, R^{8b}, R^{9b}, R^{10b}, R^{11b}, R^{12b}, R^{13b}, R^{14b}$ and R^{15b} are independently selected from H, (C_1-C_6) alkyl, aryl or aralkyl;

X is a neutral or negatively charged O-, N- or S- donor ligand or halo;

G and G' are independently selected from alkali metals, aryl, aralkyl and (C_1-C_6) alkyl;

Y-L-Y' is a bidentate ligand bearing a negative charge with a proportion of the charge on both Y and Y', Y and Y' are independently selected from O, S or NR^{16} , wherein R^{16} is H, (C_1-C_6) alkyl, aryl or aralkyl, and L is a group linking Y and Y' and comprises one or more groups selected from (C_1-C_6) alkylene, (C_1-C_6) alkenylene, (C_1-C_6) alkynylene, arylene, aralkylene, alkarylene, each of said latter six groups being optionally substituted, ferrocenylene, Se, Se-Se, S-S, N=N and C=O;

m is -1, 0 or +1 and the compound comprises a counterion when m is -1 or +1; the compound of formula (I) optionally being in the form of a dimer in which two L groups are linked either directly or through a group comprising one or more of (C_1-C_6) alkylene, (C_1-C_6) alkenylene, arylene, aralkylene, alkarylene, Se, Se-Se, S-S, N=N and C=O or in which L bears two Y groups and two Y' groups;

with the proviso that:

when Y-L-Y' is $(CH_3C(O)CHC(O)CH_3)^-$, X is halo or an N-donor ligand, R^1, R^2, R^3, R^4, R^5 and R^6 together with the ring to which they are bound do not represent 4-isopropyl-1-methylbenzene;

when Y-L-Y' is $(CH_3C(O)CHC(O)CH_3)^-$ and X is chloro, $(CH_3)_2SO$, CH_3CN , pyridine or $(CH_3C(O)CHC(O)CH_3)^-$: R^1, R^2, R^3, R^4, R^5 and R^6 are not all H or all methyl; R^1, R^3 and R^5 are not all H when R^2, R^4 and R^6 are all methyl; and R^2, R^4 and R^6 are not all H when R^1, R^3 and R^5 are all methyl; and

when Y-L-Y' is $(CF_3C(O)CHC(O)CF_3)^-$ and X is chloro, R^1, R^2, R^3, R^4, R^5 and R^6 are not all H or all methyl; R^1, R^3 and R^5 are not all H when R^2, R^4 and R^6

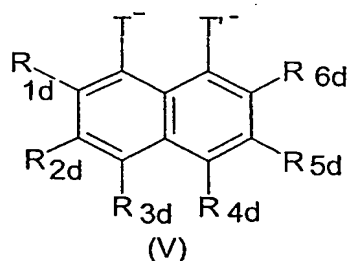
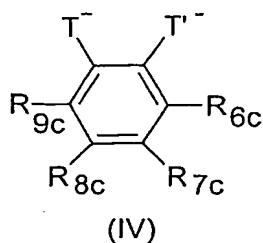
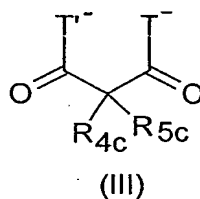
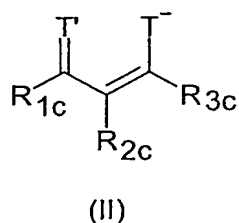
are all methyl; and R^2 , R^4 and R^6 are not all H when R^1 , R^3 and R^5 are all methyl.

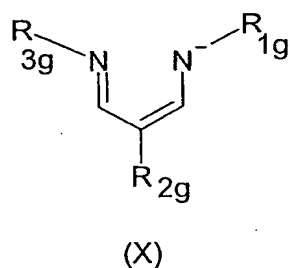
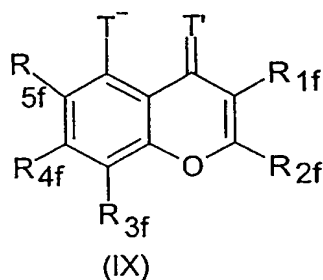
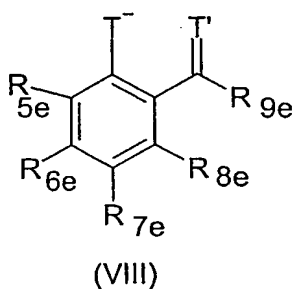
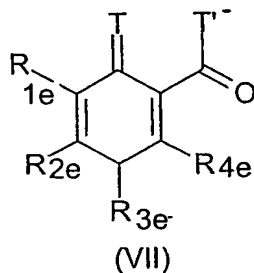
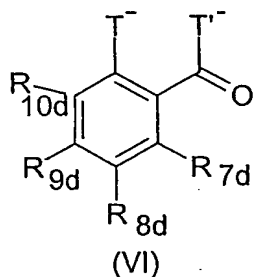
2. Compound as claimed in Claim 1, wherein R^1 , R^2 , R^3 , R^4 , R^5 and R^6 are independently selected from H, (C₁-C₆)alkyl and phenyl or R^1 and R^2 together with the ring to which they are bound represent anthracene or a hydrogenated derivative of anthracene, said phenyl and anthracene or a hydrogenated derivative of anthracene group being optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, phenyl, benzyl, halo, carboxyl, CO₂(C₁-C₆)alkyl, CONH₂, COH, CO(C₁-C₆)alkyl, SO₃H, SO₂NH₂, phenoxy, (C₁-C₆)alkylthio, NH₂ or (C₁-C₆)alkoxy.

3. Compound as claimed in Claim 1 or Claim 2, wherein m is 0.

4. Compound as claimed in any one of Claims 1 to 3, wherein X is halo or CH₃CN.

5. Compound as claimed in any one of Claims 1 to 4, wherein Y-L-Y' is selected from ligands of formulae (II) to (X):



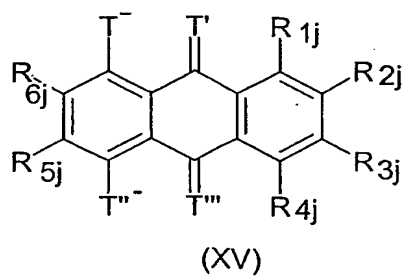
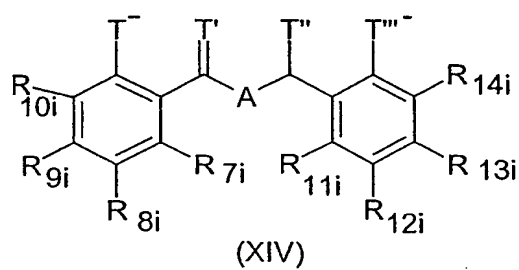
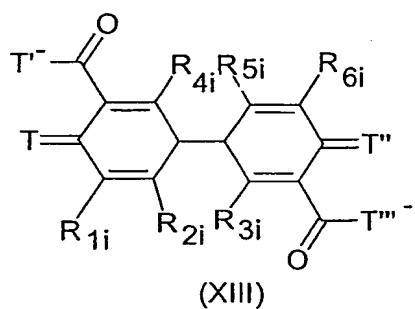
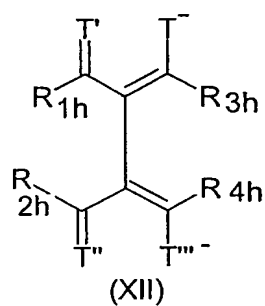
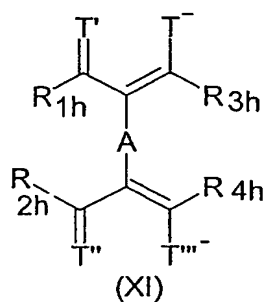


wherein T and T' are independently selected from O and S,

R_{1g} and R_{3g} are independently H, (C₁-C₆)alkyl, aryl or aralkyl,

R_{1c} to R_{5f} and R_{2g} are independently H, (C₁-C₆)alkyl, aryl, aralkyl, wherein the latter two groups and the corresponding groups for R_{1g} and R_{3g} are optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, carboxyl, CO₂R^{7b}, CONR^{8b}R^{9b}, COR^{10b}, SO₃H, SO₂N R^{11b}R^{12b}, aryloxy, (C₁-C₆)alkylthio, -N=N-R^{13b}, NR^{14b}R^{15b} and (C₁-C₆)alkoxy, wherein R^{7b}, R^{8b}, R^{9b}, R^{10b}, R^{11b}, R^{12b}, R^{13b}, R^{14b} and R^{15b} are as defined in Claim 1.

6. Compound as claimed in any one of Claims 1 to 4, wherein Y-L-Y' is selected from:

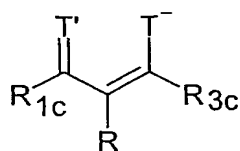


wherein T, T', T'' and T''' are independently selected from O and S,

A comprises one or more groups selected from (C₁-C₆)alkylene, (C₁-C₆)alkenylene, (C₁-C₆)alkynylene, arylene, aralkylene, alkarylene, ferrocenylene, Se, Se-Se, S-S, N=N and C=O

and R_{1h} to R_{6j} are independently H, (C₁-C₆)alkyl, aryl, aralkyl, wherein the latter two groups are optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, carboxyl, CO₂R^{7b}, CONR^{8b}R^{9b}, COR^{10b}, SO₃H, SO₂N R^{11b}R^{12b}, aryloxy, (C₁-C₆)alkylthio, -N=N-R^{13b}, NR^{14b}R^{15b} and (C₁-C₆)alkoxy, wherein R^{7b}, R^{8b}, R^{9b}, R^{10b}, R^{11b}, R^{12b}, R^{13b}, R^{14b} and R^{15b} are as defined in Claim 1.

7. Compound as claimed in any one of Claims 1 to 4, wherein Y-L-Y' is:



wherein T and T' are independently O and S, and

R, R_{1c} and R_{3c} are independently H, (C₁-C₆)alkyl, aryl, aralkyl, wherein the latter two groups are optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, carboxyl, CO₂R^{7b}, CONR^{8b}R^{9b}, COR^{10b}, SO₃H, SO₂N R^{11b}R^{12b}, aryloxy, (C₁-C₆)alkylthio, -N=N-R^{13b}, NR^{14b}R^{15b} and (C₁-C₆)alkoxy, wherein R^{7b}, R^{8b}, R^{9b}, R^{10b}, R^{11b}, R^{12b}, R^{13b}, R^{14b} and R^{15b} are as defined in Claim 1.

8. Compound as claimed in Claim 7, wherein T and T' are both O, R is H or (C₁-C₆)alkyl and R_{1c} and R_{3c} are independently (C₁-C₆)alkyl or phenyl, said phenyl optionally substituted by (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, halo, carboxyl, CO₂(C₁-C₆)alkyl, CONH₂, COH, CO(C₁-C₆)alkyl, SO₃H, SO₂NH₂, phenoxy, (C₁-C₆)alkylthio, NH₂ or (C₁-C₆)alkoxy.
9. Compound as claimed in claim 8, wherein R is H and R_{1c} and R_{3c} are independently (C₁-C₆)alkyl or phenyl.
10. Compound as claimed in any one of Claims 1 to 9, wherein Y and Y' are both O.
11. Compound of formula (I) according to any one of Claims 1 to 10 without the provisos, for use in medicine.
12. Use of a compound of formula (I) according to any one of Claims 1 to 10 without the provisos, in the manufacture of a medicament for the treatment and/or prevention of cancer.
13. Pharmaceutical composition comprising a compound of formula (I) according to any one of Claims 1 to 10 without the provisos, together with one or more pharmaceutically acceptable excipients.
14. A method of treating and/or preventing cancer which comprises administering to a subject a therapeutically effective amount of a compound of formula (I) according to any one of Claims 1 to 10 without the provisos, or a composition of Claim 13.

15. Process for preparing the compound of any one of Claims 1 to 10 which comprises the reaction of a compound of formula $[(\eta^6\text{-C}_6(\text{R}^1)(\text{R}^2)(\text{R}^3)(\text{R}^4)(\text{R}^5)(\text{R}^6))\text{RuX}_2]$, optionally in the form of a dimer, with Y-L-Y, in a suitable solvent for the reaction, wherein $\text{R}^1, \text{R}^2, \text{R}^3, \text{R}^4, \text{R}^5, \text{R}^6, \text{X}, \text{Y}, \text{Y}'$ and L are as defined in Claim 1.